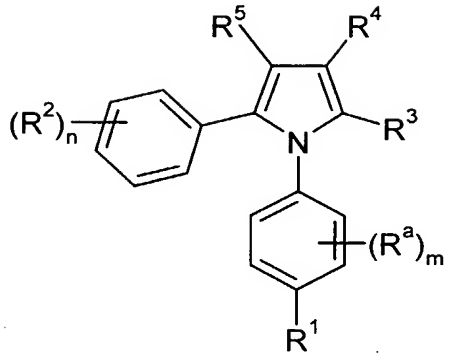
Claims

1. A compound of formula (I)



I

and pharmaceutically acceptable salts and solvates thereof, in which

R^1 represents a) a C_{3-6}alkoxy group substituted by one or more fluoro, b) a group of formula phenyl$(CH_2)_pO$- in which p is 1, 2 or 3 and the phenyl ring is optionally substituted by 1, 2 or 3 groups represented by Z, c) a group $R^6S(O)_2O$ or $R^6S(O)_2NH$ in which R^6 represents a C_{1-6}alkyl group optionally substituted by one or more fluoro, or R^6 represents phenyl or a heteroaryl group each of which is optionally substituted by 1, 2 or 3 groups represented by Z or d) a group of formula $(R^7)_3$ Si in which R^7 represents a C_{1-6}alkyl group which may be the same or different;

R^a represents halo, a C_{1-3}alkyl group or a C_{1-3}alkoxy group

m is 0, 1, 2 or 3;

R^2 represents a C_{1-3}alkyl group, a C_{1-3}alkoxy group, hydroxy, nitro, cyano or halo

n is 0, 1, 2 or 3;

R^3 represents H, a C_{1-6}alkyl group, a C_{1-6}alkoxy group or a C_{1-6}alkoxyC_{1-6}alkylene group which contains a maximum of 6 carbon atoms, each of which groups is optionally substituted by one or more fluoro or cyano;

R^4 represents

a) a group X-Y-NR^8R^9

in which X is CO or SO_2,

Y is absent or represents NH optionally substituted by a C_{1-3}alkyl group;

and R^8 and R^9 independently represent :

a C_{1-6}alkyl group optionally substituted by 1, 2, or 3 groups represented by W;

a C_{3-15}cycloalkyl group optionally substituted by 1, 2, or 3 groups represented by W;

an optionally substituted (C_{3-15}cycloalkyl)C_{1-3}alkylene group optionally substituted by 1, 2, or 3 groups represented by W;

a group $-(CH_2)_r$(phenyl $)_s$ in which r is 0,1, 2, 3 or 4, s is 1 when r is 0 otherwise s is 1 or 2 and the phenyl groups are optionally independently substituted by one, two or three groups represented by Z;

a saturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following : oxygen, sulphur or an additional nitrogen wherein the heterocyclic group is optionally substituted by one or more C_{1-3}alkyl groups, hydroxy or benzyl ;

a group $-(CH_2)_t$ Het in which t is 0,1, 2, 3 or 4, and the alkylene chain is optionally substituted by one or more C_{1-3}alkyl groups and Het represents an aromatic heterocycle optionally substituted by one, two or three groups selected from a C_{1-5}alkyl group, a C_{1-5}alkoxy group or halo;

or R^8 represents H and R^9 is as defined above;

or R^8 and R^9 together with the nitrogen atom to which they are attached represent a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following : oxygen, sulphur or an additional nitrogen; wherein the heterocyclic group is optionally substituted by one or more C_{1-3}alkyl groups, hydroxy, fluoro or benzyl;

or b) oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, oxadiazolyl, thiadiazolyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, thienyl, furyl or oxazolinyl,

each optionally substituted by 1, 2 or 3 groups Z;

a) a group X-Y-NR^8R^9

in which X is CO or SO_2,

Y is absent or represents NH optionally substituted by a C_{1-3}alkyl group;

and R^8 and R^9 independently represent :

a C_{1-6}alkyl group optionally substituted by 1, 2, or 3 groups represented by W;

a C_{3-15}cycloalkyl group optionally substituted by 1, 2, or 3 groups represented by W;

an optionally substituted (C_{3-15}cycloalkyl)C_{1-3}alkylene group optionally substituted by 1, 2, or 3 groups represented by W;

a group $-(CH_2)_r$(phenyl $)_s$ in which r is 0,1, 2, 3 or 4, s is 1 when r is 0 otherwise s is 1 or 2 and the phenyl groups are optionally independently substituted by one, two or three groups represented by Z;

a saturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following : oxygen, sulphur or an additional nitrogen wherein the heterocyclic group is optionally substituted by one or more C_{1-3}alkyl groups, hydroxy or benzyl ;

a group $-(CH_2)_t$ Het in which t is 0,1, 2, 3 or 4, and the alkylene chain is optionally substituted by one or more C_{1-3}alkyl groups and Het represents an aromatic heterocycle optionally substituted by one, two or three groups selected from a C_{1-5}alkyl group, a C_{1-5}alkoxy group or halo;

or R^8 represents H and R^9 is as defined above;

or R^8 and R^9 together with the nitrogen atom to which they are attached represent a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following : oxygen, sulphur or an additional nitrogen; wherein the heterocyclic group is optionally substituted by one or more C_{1-3}alkyl groups, hydroxy, fluoro or benzyl;

or b) oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, oxadiazolyl, thiadiazolyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, thienyl, furyl or oxazolinyl,

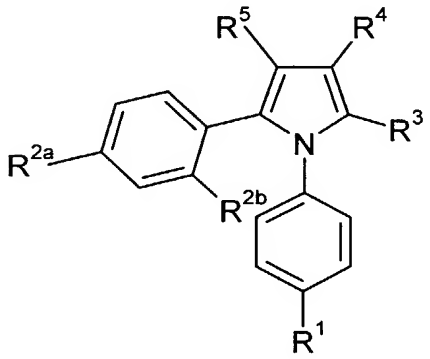
each optionally substituted by 1, 2 or 3 groups Z;

R^5 represents H or a C_{1-3}alkyl group;

Z represents a C_{1-3}alkyl group, a C_{1-3}alkoxy group, hydroxy, halo, trifluoromethyl, trifluoromethylthio, difluoromethoxy, trifluoromethoxy, trifluoromethylsulphonyl, nitro, amino, mono or di C_{1-3}alkylamino, C_{1-3}alkylsulphonyl, C_{1-3}alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C_{1-3}alkyl carbamoyl and acetyl; and

W represents hydroxy, fluoro, a C_{1-3}alkyl group, a C_{1-3}alkoxy group, amino, mono or di C_{1-3}alkylamino, or a heterocyclic amine selected from morpholinyl, pyrrolidinyl, piperdinyl or piperazinyl in which the heterocyclic amine is optionally substituted by a C_{1-3}alkyl group or hydroxyl.

2. A compound of formula (IA)



IA

in which R^1 is
a) a C_{3-6}alkoxy group substituted by one or more fluoro, b) a group of formula phenyl$(CH_2)_pO$- in which p is 1, 2 or 3 and the phenyl ring is optionally substituted by 1, 2 or 3 groups represented by Z, c) a group $R^6S(O)_2O$ or $R^6S(O)_2NH$ in which R^6 represents a C_{1-6}alkyl group optionally substituted by one or more fluoro, or R^6 represents phenyl or a heteroaryl group each of which is optionally substituted by 1, 2 or 3 groups represented by Z or d) a group of formula $(R^7)_3$ Si in which R^7 represents a C_{1-6}alkyl group which may be the same or different;
R^{2a} represents chloro;
R^{2b} represents chloro;

R^3 represents a C_{1-3}alkyl group;
R^4 represents a group $CONHNR^8R^9$ in which NR^8R^9 represents piperidino; and
R^5 represents H.

3. A compound selected from one or more of the following:
1-[4(benzyloxy)phenyl]-5-(2,4-dichlorophenyl)-2-methyl-*N*-piperidin-1-yl-1H-pyrrole-3-carboxamide;
4-{5-(2,4-dichlorophenyl)-2-methyl-3-[piperidin-1-ylamino)carbonyl]-1*H*-pyrrol-1-yl}phenyl trifluoromethanesulfonate;
5-(2,4-dichlorophenyl)-2-methyl-*N*-piperidin-1-yl-1-(4-(3,3,3-trifluoropropoxyphenyl))-1*H*-pyrrole-3-carboxamide ;
4-{5-(2,4-dichlorophenyl)-2-methyl-3-[(piperidin-1-ylamino)carbonyl]-1*H*-pyrrol-1-yl}phenyl butane-1-sulfonate;
5-(2,4-Dichloro-phenyl)-2-methyl-1-(4-trimethylsilanyl-phenyl)-1H-pyrrole-3-carboxylic acid piperidin-1-ylamide; and
4-{5-(2,4-dichlorophenyl)-2-methyl-3-[(piperidin-1-ylamino)carbonyl]-1*H*-pyrrol-1-yl}phenyl propane-1-sulfonate
as well as pharmaceutically acceptable salts thereof.

4. A compound of formula I as claimed in any previous claim for use as a medicament.

5. A pharmaceutical formulation comprising a compound of formula I according to any one of claims 1 to 3 and a pharmaceutically acceptable adjuvant, diluent or carrier.

6. Use of a compound of formula I according to any one of claims 1 to 3 in the preparation of a medicament for the treatment or prophylaxis of obesity, psychiatric disorders such as psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxio-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, and neurological disorders such as dementia, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the

respiratory and gastrointestinal systems, and extended abuse, addiction and/or relapse indications.

7. A method of treating obesity, psychiatric disorders, psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxio-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, neurological disorders, neurological disorders , Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal system, and extended abuse, addiction and/or relapse indications, comprising administering a pharmacologically effective amount of a compound of formula I according to any one of claims 1 to 3 to a patient in need thereof.

8. A compound as defined any one of claims 1 to 3 for use in the treatment of obesity.